

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1, 2, 4, and 5 are pending in the application, with all claims being independent. Claim 3 is sought to be cancelled without prejudice to or disclaimer of the subject matter contained therein. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 103

Claims 1, 2, and 5 stand rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over U.S. Pat. No. 5,697,377 to Wittkampff ("Wittkampff") in view of U.S. Pat. No. 5,588,432 to Crowley ("Crowley"). Applicants respectfully traverse.

Wittkampff is directed to three-dimensional catheter location using electromagnetic imaging to map a heart chamber geometry, while Crowley is directed to two-dimensional catheter location using ultrasonic imaging. In electromagnetic imaging, current pulses are emitted from multiple directions from multiple emitters. The current pulses are detected by a location electrode, which uses triangulation to determine the three-dimensional location of the electrode. On the other hand, in ultrasonic imaging, acoustic waves are emitted in a single direction by an emitter. When the waves strike an intervening surface, the waves are reflected. A detector creates an image based on the reflective waves. Since no triangulation occurs in ultrasonic imaging, and since the

reflections do not indicate a distance of the intervening surface from the emitter or detector, ultrasonic imaging cannot provide a three-dimensional image. Applicants therefore submit that a person of ordinary skill in the relevant art at the time Applicants' invention was made would not have been motivated to combine Wittkampf, which uses electromagnetic imaging and current pulses to locate a catheter in three dimensions with Crowley, which uses ultrasonic imaging and sound waves to locate a catheter in two dimensions, given the technological differences between electromagnetic imaging and ultrasound imaging.

Applicants assert that in order to combine electromagnetic reference Wittkampf with ultrasound reference Crowley the Examiner has used impermissible hindsight. *Continental Can Company v. Monsanto Company*, 948 F.2d 1264, 1271, 20 USPQ2d 1746, 1751 (Fed. Cir. 1991) ("When prior art references require selective combination ... there must be some reason for the combination other than the hindsight gleaned from the invention itself."); *Heidelberger Druckmaschinen AG v. Hantscho Commercial Products, Inc.*, 21 F.3d 1068, 1072 30 USPQ2d 1377,1380 (Fed. Cir. 1993) ("The motivation to combine references can not come from the invention itself."); *Para-Ordnance Manufacturing, Inc. v. SGS Importers International, Inc.*, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995) ("Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor.").

Therefore, because Wittkampf and Crowley cannot be combined without the use of impermissible hindsight, no *prima facie* case of obviousness has been established. Reconsideration and withdrawal of the rejections of claims 1, 2, and 5 are respectfully requested.

Claim 3 stands rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Wittkampf in view of U.S. Pat. No. 5,824,005 to Motamedi *et al.* ("Motamedi"). Claim 3 has been cancelled. Applicants submit that the rejection of claim 3 is thus rendered moot.

Claim 4 stands rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Wittkampf in view of U.S. Pat. No. 4,641,649 to Walinsky *et al.* ("Walinsky"). Applicants respectfully traverse.

Wittkampf involves determining the absolute location of a non-contact catheter to create a chamber geometry. In contrast, Walinsky involves determining the relative location of a catheter in contact with a heart wall to map cardiac action potentials in the heart wall. Applicants submit that a person of ordinary skill in the relevant art at the time Applicants' invention was made would not have been motivated to combine Wittkampf, which is directed to absolute location of a non-contact catheter with Walinsky, which is directed to relative location of a catheter requiring contact with the heart wall. Such a combination requires impermissible hindsight.

Therefore, because Wittkampf and Walinsky cannot be combined without the use of impermissible hindsight, no *prima facie* case of obviousness has been established. Reconsideration and withdrawal of the rejection of claim 4 is respectfully requested.

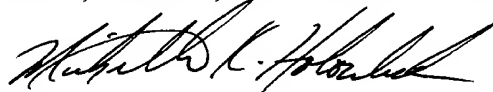
Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michelle K. Holoubek
Attorney for Applicants
Registration No. 54,179

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1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600

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